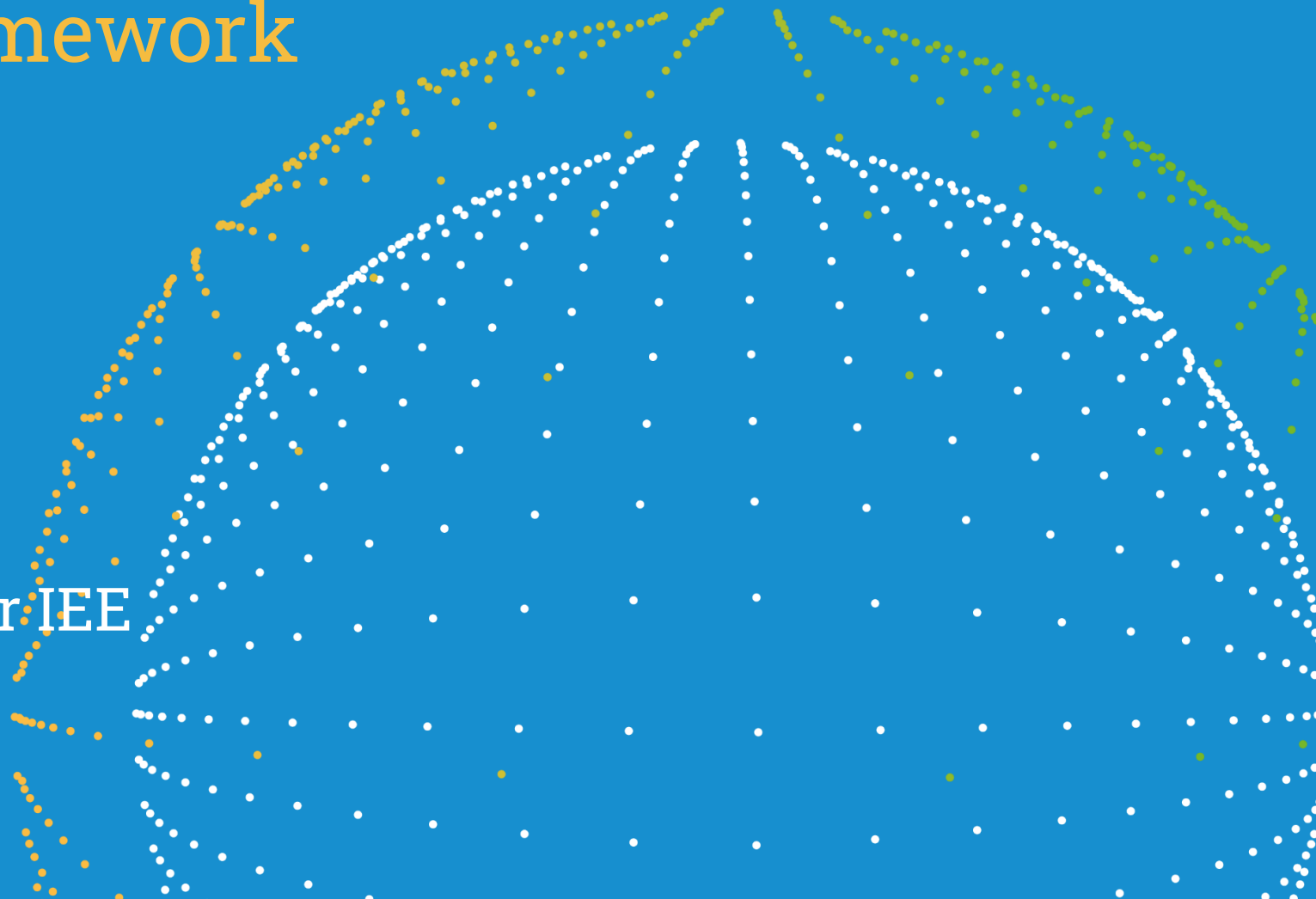
Data Spaces Symposium

Energy Data Space Interoperability Framework



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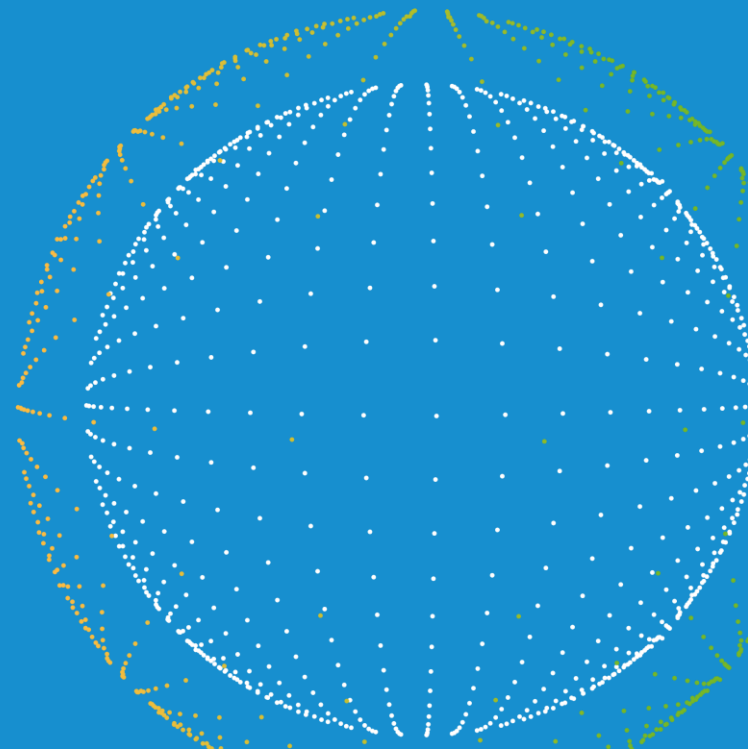
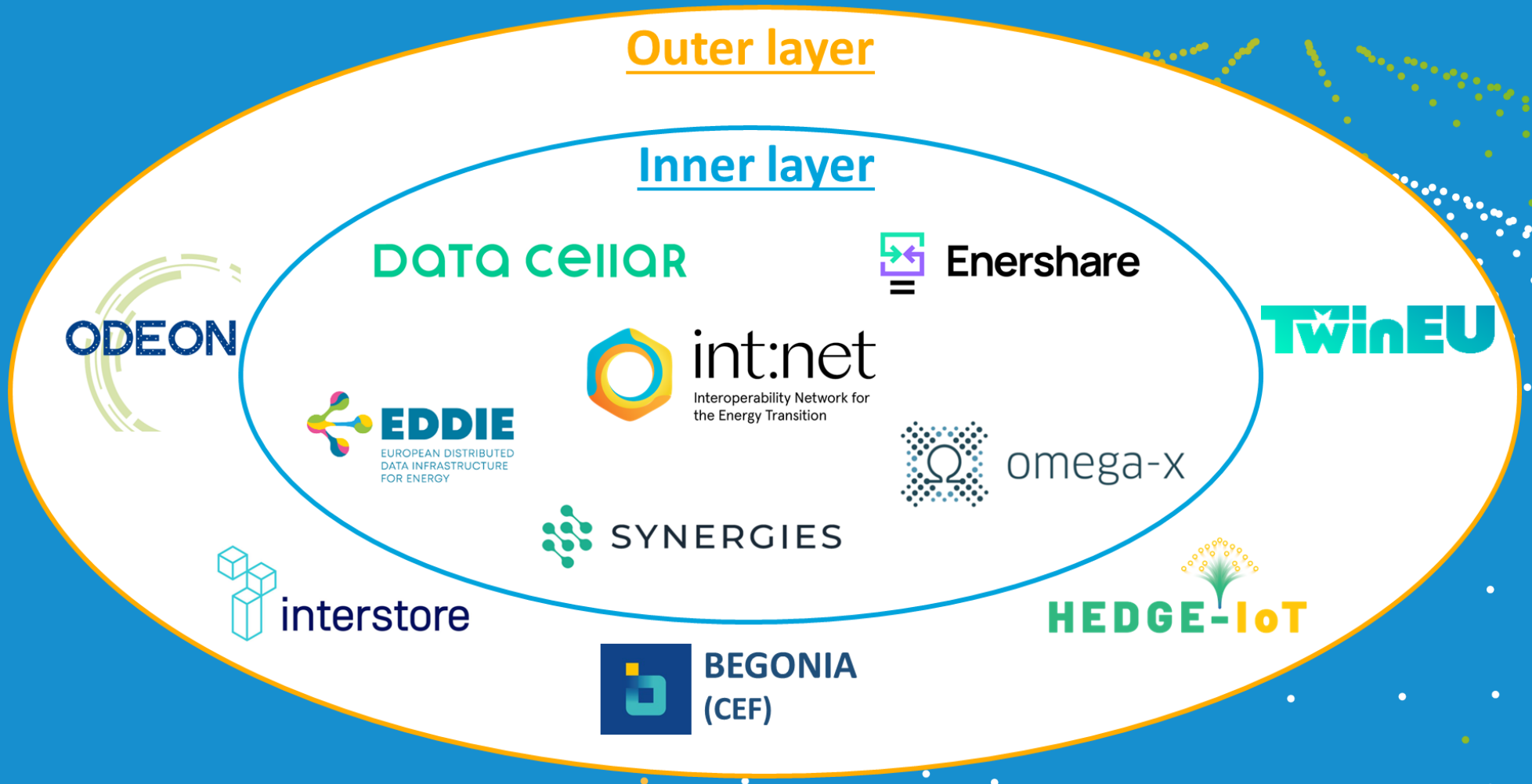
The Energy Data Spaces Cluster

- **General objective:** prepare the ground for the **Common European Energy Data Space (CEEDS).**

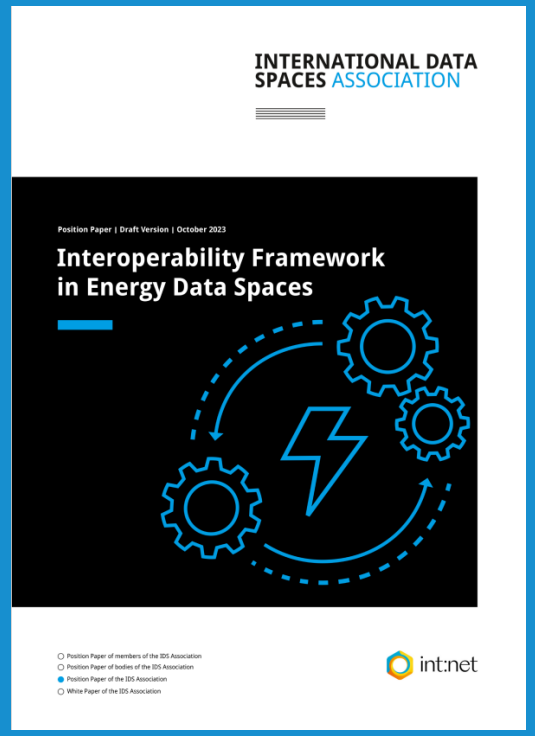
- **Specific objectives :**
  - Priority **use cases**
  - **Target data sets** and the respective providers of data.
  - **Common building blocks**
  - **Interoperability** requirements
  - Key **data hubs/platforms** that should be federated.
  - **Governance arrangements**, involving key stakeholders and investment needs.



Energy Cluster Projects

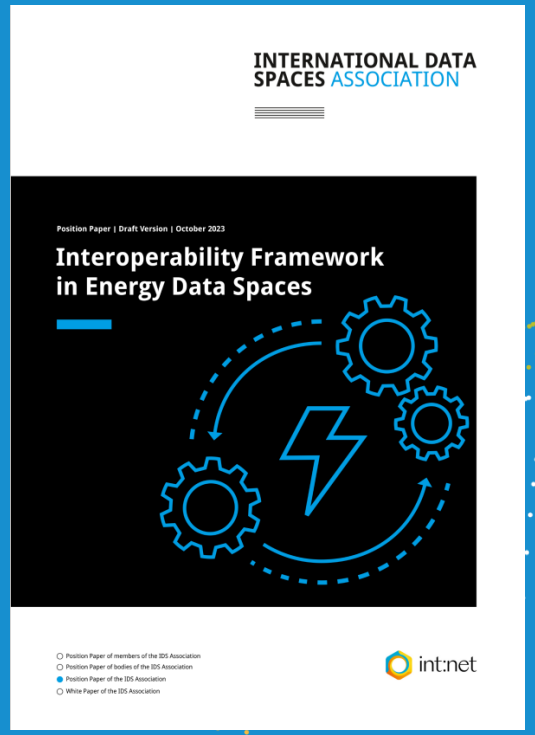


Energy Cluster Activities



Interoperability Framework in Energy Data Spaces

- The purpose of this paper is to define a framework for achieving technical and semantic interoperability between data spaces in the energy domain. To accomplish this, it takes the work of the HORIZON-CL5-2021-D3-01 projects as its foundation, and describes the state of the art, and the challenges specific to this context.



Interoperability Framework in Energy Data Spaces

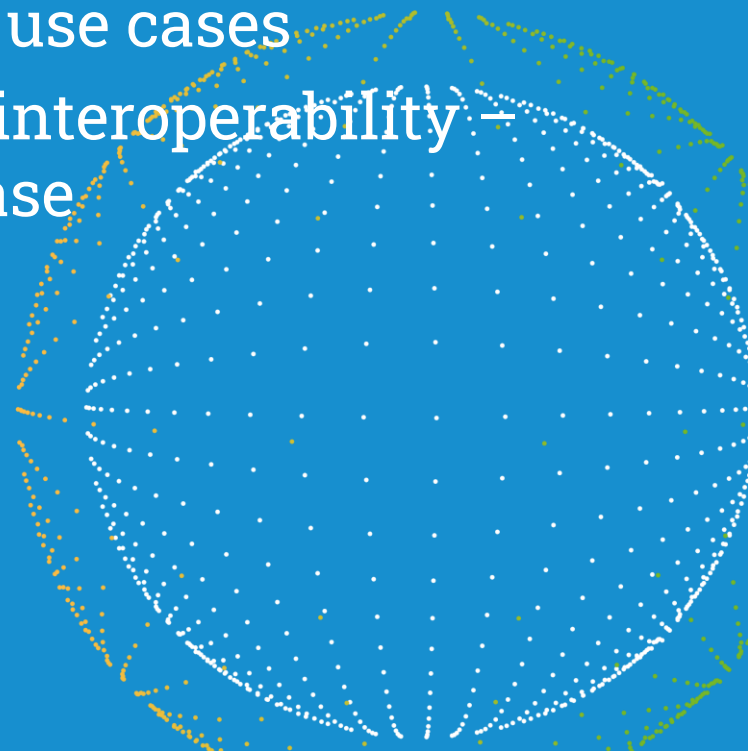
Interoperability Framework in Energy Data Spaces

Current content

1. State of the Art and Standards
2. Data space governance and interoperability
3. Definition of energy interoperability framework:
   a) Technical interoperability
   b) Semantic interoperability
4. Existing interoperability tools and platforms
5. How to achieve cross-domain interoprability

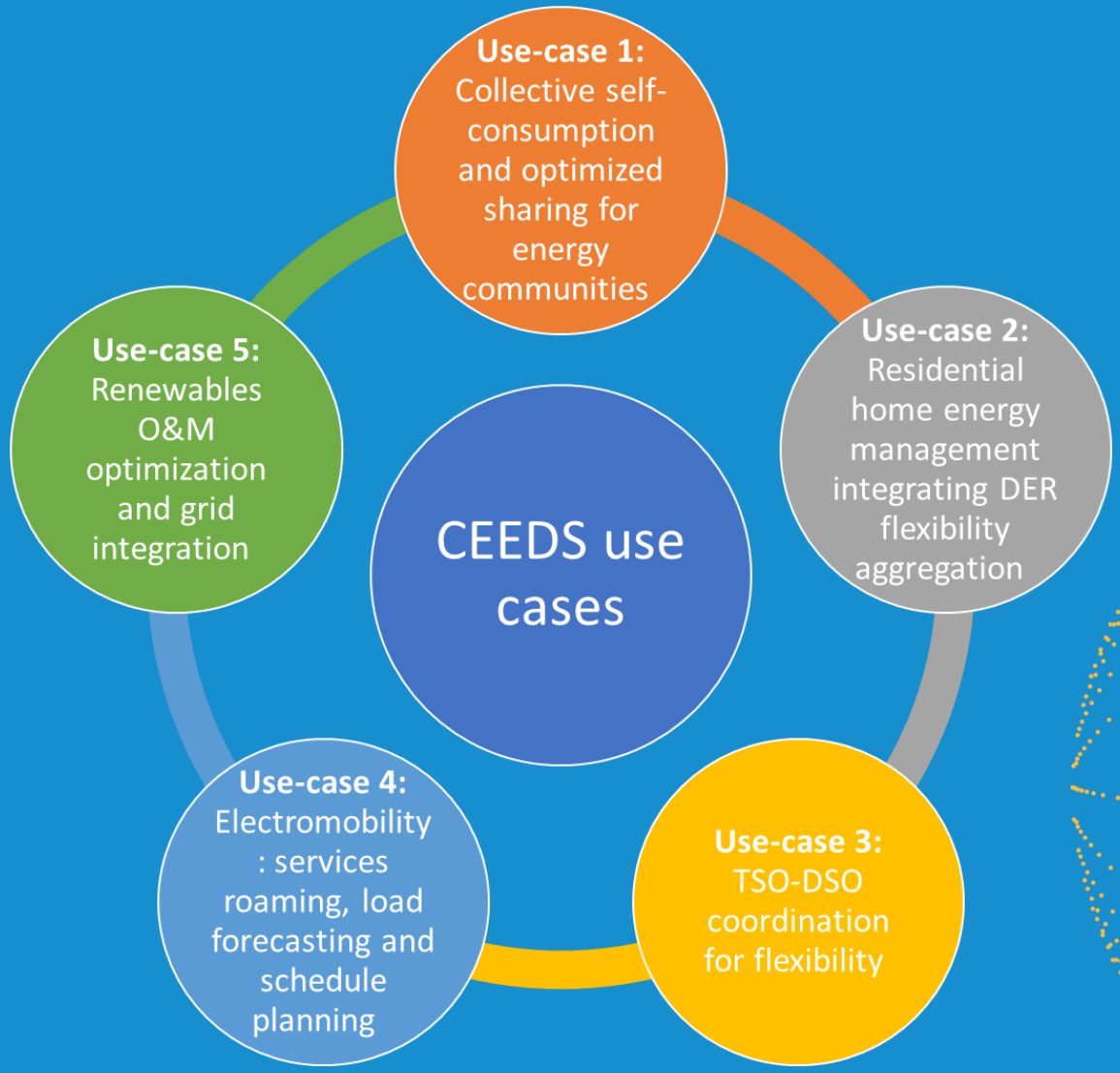
2nd iteration

- Actors of the Energy domain
- Organizational interoperability
- Energy cluster use cases
- Cross-domain interoperability – Mobility use case



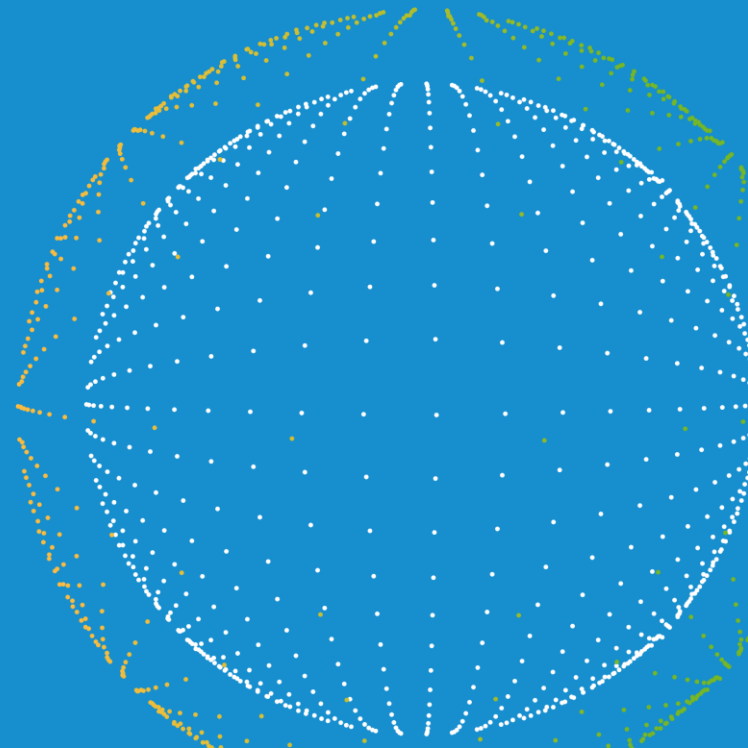
Business Use Cases for Energy

- Identified reference use-cases for Common European Energy Data Space (CEEDS)
- Described with scenarios, actors and data sets



CEEDS System Use Cases

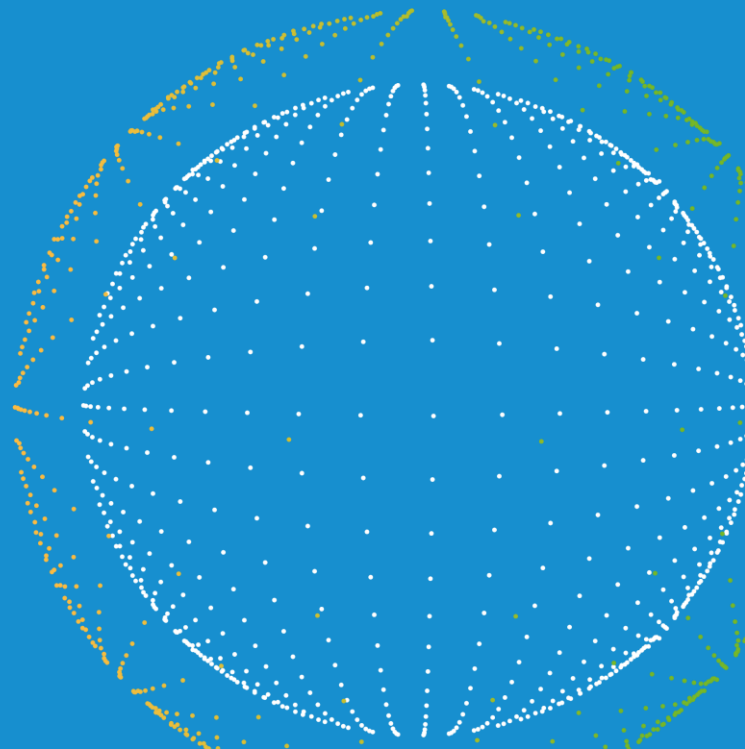
- Energy cluster projects have defined 4 system use cases aimed at **achieving inter-data space interoperability.**
- These use cases rely on a minimum **subset of software building blocks, APIs, and interoperability standards** deemed essential to demonstrate and ensure overall interoperability.
- The projects **commit on aligning the technologies** used at each project to enable cross-project testing.



CEEDS System Use Cases

- **SUC1 - Onboarding** (process to generate, and check credentials to access an ecosystem)
- **SUC2 - Data Discovery** and push into the catalogue
- **SUC3 - Contracting** (selecting a dataset and/or service to purchase it).
- **SUC4 - Data Exchange** and interoperability

There will be a PoC to deploy the System Use Cases



Blueprint of the CEEDS

- Detailed approach and recommendations for the practical **implementation of the Common European Energy Data Space** (CEEDS)

- Facilitates the **adoption of data space solutions.**

- It outlines two key aspects:
  - a framework for economically feasible **business use cases**
  - **general data space architecture** necessary to enable these use cases.

- **Technical specifications:** to achieve the interconnection of existing data infrastructures with federated data spaces

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Thank you!